1. All work shall be completed in accordance with the standard details and specifications of the City of Blythe. All standard details and specifications are available at the Public Works Office, 440 South Main Street, Blythe, California. Also, all work shall conform with the "CALTRANS Standard Specifications" (Latest Edition).

2. The Contractor shall contact Underground Service Alert at 1-800-227-2600 at least 48 hours prior to any construction.

3. The Contractor shall provide a "Traffic Control and Worker Protection Plan", prepared in accordance with CALTRANS Division of Maintenance -Chapter 8 (Protection of Workers), when working in a dedicated Rightof—Way (R/W). The 'Plan' shall be submitted to and be approved by the City of Blythe-Department of Public Works seven (7) days prior to any work in the R/W. The Contractor shall provide all lights, signs, barricades, flagmen or other devices necessary to provide for worker and public safety. All traffic control and safety devices must be onsite, inspected and approved prior to the commencement of any work. The Contractor shall keep all control and safety devices in proper position and working order at ALL times.

4. The Contractor shall provide for ingress and egress for private property adjacent to the work throughout the period of construction.

5. The Contractor shall complete all work in strict accordance with the requirements of the project geotechnical consultant

6. The site shall be wet down as necessary during construction to eliminate dust generation.

7. Any dirt, dust, or mud, either tracked off site by equipment or blown into adjacent City streets will be cleaned up daily by the responsible

8. The location of existing utilities are shown in an approximate way only. The Contractor shall determine the exact location of all existing utilities before commencing work. The Contractor shall be fully responsible for any and all damages which might be occasioned by the failure to exactly locate and preserve any and all underground utilities.

9. All grading shall comply with Chapter 70 of the Uniform Building Code, latest edition. (Except that minimum grade for swales = 0.50 %.)

10. The Contractor shall arrange for all inspections within the City of Blythe with a minimum of 24 hours advance notice. When the Contractor is not present at the inspection appointment site and/or the work is not ready for inspection within fifteen (15) minutes of the appointed time, a reinspection appointment shall be scheduled. The Contractor/Developer may be assessed an amount equal to the Inspector's cost to the City for one payroll hour for each reinspection.

11. All site grading shall be finished to the elevations, lines and grades shown on the plans. All finished grades shall be within 0.10 foot of plan

12. A minimum of six compaction tests per block of street shall be provided at the City's expense at the discretion of the City for each of the following: each of the utility trenches installed, subgrade, subbase, base and finished A.C.

13. During grading operations the Contractor shall be responsible for selecting equipment that will not cause "pumping" of the soil due to the depth of groundwater prior to construction.

14. The Contractor shall be licensed by the State of California, have a City Business License and shall file a Certificate of Workmens' compensation with the City of Blythe prior to the start of construction.

15. A list of all subcontractors shall be provided by the General Contractor to the City Department of Public Works.

16. Any street closures to be done during the course of construction will be done solely by the responsible Contractor, in coordination with and with the approval of the Blythe Public Works Department. A minimum notice of 48 hours shall be provided to the public and affected agencies. (School, Police, Fire, PVID, Etc.)

17. No open trenches will be permitted overnight without the Director of Public Works or his agents approval.

18. Planned water outages shall be coordinated with the Blythe Public Works Department one-week prior to shut down.

19. The Contractor shall maintain an "AS-BUILT" set of plans at the job site. These plans must be kept in good condition, reflect ALL changes of the project from the approved plans in red ink and be updated daily. At the conclusion of the project the Contractor shall furnish the City with one complete set of the "AS-BUILT" plans. Final approval of the project shall NOT be granted until the provisions of this requirement have been

STREET CONSTRUCTION

1. All work shall be completed in accordance with the Standard Details and Specifications of the City of Blythe; all standard details and specifications are available at the Public Works Office, 440 South Main Street, Blythe California. Also work shall conform with CALTRANS Standard Specifications (latest edition).

2. The Contractor agrees to assume sole and complete responsibility for job site conditions during the course of construction of this project, including the safety of all persons and property. This requirement shall apply continuously and shall not be limited to normal working hours. The Contractor shall defend, indemnify and hold the City of Blythe harmless from any and all liability, real or alleged, in connection with the performance of work on this project.

3. The Contractor shall provide a "Traffic Control and Worker Protection , prepared in accordance with CALTRANS Division of Maintenance -Chapter 8 (Protection of Workers), when working in a dedicated Rightof-Way (R/W). The 'Plan' shall be submitted to and be approved by the City of Blythe-Department of Public Works seven (7) days prior to any work in the R/W. The Contractor shall provide all lights, signs, barricades, flagmen or other devices necessary to provide for public safety. All traffic control and safety devices must be onsite, inspected and approved prior to the commencement of any work. The Contractor shall keep all control and safety devices in proper position and working order at ALL times. If at any time the City representative determines that the "Traffic Control and Worker Protection Plan" and the control measures and safety devices do not adequately protect the workers and insure the public safety, all work shall immediately cease and shall not resume until the deficiencies have been

4. The Contractor shall provide for ingress and egress from and to private property adjacent to the work throughout the period of construction.

5. The location of existing utilities are shown in an approximate way only. The Contractor shall determine the exact location of all existing utilities before commencing work. The Contractor shall be fully responsible for any and all damages which might be occasioned by the failure to exactly locate and preserve any and all underground utilities.

6. The flowline of all curb, gutter and ribbon gutter shall be water tested before acceptance of the project. Curb extruding machines may be allowed in accordance with CALTRANS Standard Specifications Section 73-1.05 B.

7. The Contractor shall arrange for all inspections within the City of Blythe with a minimum of 24 hours advance notice. When the Contractor is not present at the inspection appointment site and/or the work is not ready for inspection within fifteen (15) minutes of the appointed time, an inspection appointment shall be scheduled. The Contractor may be assessed an amount egual to the inspector's cost to the City for one payroll hour for each reinspection.

8. Subgrade elevation for streets shall not project above design elevations. The finished surface of the aggregate base course shall be within 0.02' feet of design elevations. Subgrade shall be compacted to 90% — ASTM - 1557-91 or ASTM - D- 2922 CL 2 aggregate base course shall be compacted to 95% ASTM - 1557-91, or ASTM - D-2922.

9. The asphaltic concrete thickness shall not be less than 0.25 inches of design thickness. A minimum of "3" 3—inch minimum diameter cores may be required to be obtained by the Contractor from each block of street, measured for thickness and density, at the discretion of the City. 10. A minimum of six compaction tests per block of street shall be provided

at the City's expense, at the discretion of the City, to verify compaction of: native subgrade, aggregate base course, each utility trench and curb and gutter subgrade.

Specifications (latest edition) and the City of Blythe Standard 12. Materials certifications and any mix designs required for concrete or

11. Construction materials for streets, curbs, gutters, and sidewalks shall

conform to the State of California, Department of Transportation Standard

asphaltic concrete work shall be submitted to the City of Blythe for approval 2 weeks prior to use on the project. 13. All asphalt concrete 3 inches or greater in thickness shall be constructed in two (2) courses, one base course and one surface course.

14. Hot mixed asphalt only will be placed within the City of Blythe with a floating, heated screed, laydown machine, in accordance with Sections 39-6.01 and -6.02. The method of compaction, and the equipment used for that compaction will comply with Sections 39-5.02 and 39-6.03 CALTRANS Standard Specifications. Prime coat for base and fog seal coat

The surface course shall be a minimum thickness of twelve hundredths of

one foot (0.12'), and a maximum of twenty—five hundredths of one foot

for final paving shall be applied at the discretion of the Public Works Director. permanent damage by construction operations. 15. The Contractor shall maintain an "AS-BUILT" set of plans at the job site. These plans must be kept in good condition, reflect ALL changes of the project from the approved plans in red ink and be updated daily. At the conclusion of the project the Contractor shall furnish the City with one complete set of the "AS-BUILT" plans. Final approval of the project will NOT be granted until the provisions of this requirment have been met.

16. A Pre-construction meeting shall be conducted with the Public Works Director and his associates at least 48 hours prior to the commencement of the construction activities.

SPECIFICATIONS FOR UNDERGROUND CONDUIT PLACEMENT WITHIN THE CITY OF BLYTHE

CABLE MARKING RIBBON. Cable marking ribbon shall be furnished and installed by the Contractor. The cable marking ribbon shall be installed above all direct-buried cable and direct-buried conduit. The ribbon shall be placed at a depth of 6-inches below sub-grade and directly above the cable or conduit. The tape shall be unaffected by soil acids or alkalis.

CROSSING UNDERGROUND STRUCTURES. Where the top of the underground pipe or structure is 4 feet below grade or deeper, the cable may pass over the structure. In cases where the conduit passes above or below an underground obstruction such as a utility line, a minimum clearance of 6 inches shall be maintained with 12-inch clearance typical.

RESTORATION OF THE RIGHT OF-WAY. The right-of-way shall be restored as far as practical to the original condition. Slope protection and erosion control shall be in accordance with the section entitled EXCAVATION AND TRENCHING. Open trenches or pits shall be backfilled immediately after the

UNDERGROUND CONDUIT CROSSINGS. Where conduits are required under streets, railroads or other structures, the conduits shall be trenched, jacked or otherwise forced underneath the street, railroad or other structure or the conduit may be installed in a casing.

The casing pipe shall be installed using jacking equipment that encases the hole as the earth is removed through the interior of the casing. Boring without the concurrent installation of the casing pipe will not be permitted. The installation shall be performed in a manner that will not disrupt traffic nor damage the subgrade, and that will provide accurate alignment and grade of the pipe. There shall be no space between the earth and the outside of the casing pipe.

Before starting work on the crossing, the Contractor shall submit complete details of his proposed methods, materials and time schedule to the City of Blythe Department of Public Works. Work shall not begin on the crossing until written notification to proceed has been obtained from the City of Blythe Department of Public Works

MANHOLES. Shall be of traffic grade quality as approved by the City.

EXCAVATION AND TRENCHING

SHEETING AND SHORING. The stability of previously constructed structures and facilities shall not be impaired or endangered by excavation or trenching work. Previously constructed structures and facilities include both structures and facilities existing when this construction began and structures and facilities already provided under these Specifications.

Adequate sheeting and shoring shall be provided as required to protect and maintain the stability of previously constructed structures and facilities and the sides of excavations and trenches until they are backfilled. Sheeting bracing and shoring shall be designed and built to withstand all loads that might be caused by earth movement or pressure, and shall maintain the shape of the excavation under all circumstances.

REMOVAL OF WATER. The Contractor shall provide and maintain adequate dewatering equipment to remove and dispose of all surface and around water entering excavations, trenches and other parts of the work. Each excavation or trench shall be kept dry during subgrade preparation and continually thereafter until the construction to be provided therein is completed to the extent that no damage from hydrostatic pressure, flotation or other cause will

Surface water shall be diverted or otherwise prevented from entering excavated areas or trenches to the greatest extent practicable without causing damage to adjacent property. The method of disposal shall be approved by the City.

Excavations over 8 feet in depth from existing grade elevations between the Colorado River and Rannells Drain (west of Blythe), are likely to be below the existing water table in the Valley. Soil in this area is very permeable and unstable and excavations will require stabilization and extensive dewatering procedures.

MAINTENANCE OF TRAFFIC: The Contractor shall contact the local authority having jurisdiction over traffic control and follow any rules or regulations set forth. In general, whenever it is necessary to cross, obstruct or close roads, driveways, parking areas, and walks, the Contractor shall provide and maintain suitable and safe bridges, detours or other temporary expedients at his own expense. In making open cut road crossings, the Contractor shall not block more than one-half of the road at any time and provide for two way traffic.

Where required by the drawings, the Contractor shall widen the shoulder on

the opposite side of the road to facilitate traffic flow while blocking half of a

PROTECTION OF UNDERGROUND CONSTRUCTION. The Contractor shall locate, protect, shore, brace, support and maintain all existing underground pipes, conduits, drains and other underground construction which may be uncovered

PRESERVATION OF TREES AND NATIVE PLANTS. Trees and native plants shall be preserved and protected as much as possible. Unless specifically authorized by the City, trees and native plants shall be removed from only those areas which will be excavated, filled or built upon. Consideration will be given to the removal of additional trees only where essential, in the opinion of the Engineer, for the effective execution of the work.

or otherwise affected by the work.

Trees and native plants left standing shall be adequately protected from

STABILIZATION. Subgrades for structures and the bottom of trenches shall be firm, dense and thoroughly compacted and consolidated shall be free from excess moisture and shall be sufficiently stable to remain firm and intact under the feet of the workmen.

Subgrades for structures and trench bottoms which are otherwise solid but which become mucky on top due to construction operations shall be reinforced with one or more layers of crushed rock or gravel. All stabilization work shall be performed by and at the expense of the

acceptable to the City and retained and paid by the City. Field sampling shall be done by the testing laboratory. Field testing shall be performed by the testing laboratory at locations selected by

All laboratory testing shall be done by an independent testing laboratory

requirements of the specifications. Compaction tests for encroachments parallel to and within a road right-of-way shall be made at a minimum of three per block or at 200 foot centers, whichever is less.

the City to determine if the materials and construction will meet the

A minimum of two compaction tests shall be performed at each trench

Maximum density for cohesive compacted materials shall be determined in accordance with ASTM D 1557-91. The terms "maximum density" and optimum moisture content" shall be as defined in ASTM D 1557-91 modified" by using three layers instead of five layers to obtain a compactive effort of 33,750 ft/lbs. per cu. ft. Field density of soil shall be determined by ASTM method 1556-64T. A copy or each test result shall be promptly furnished to the City.

STRUCTURE EXCAVATION for structures shall be done to lines and elevations indicated on the drawings and to the limits required to perform the construction work. Machine excavation shall be controlled to prevent undercutting the proper subgrade elevations and shall not be used within 3 feet of permanent structures and facilities. Only hand tools shall be used for excavation around permanent structures, facilities and underground

Prior to any construction involving jacking or boring a pipe conduit below a railroad, canal, drain, road or other structure, the Contractor shall verify the location and depths of the structure and any utilities adjacent or transverse to the jacking operation. Utilities shall be exposed to the greatest extent possible prior to the jacking operation.

Work shall be done so the construction areas will be as free as possible from obstructions and from interference with the transportation, storage or handling of materials. Excavated materials free of trash, rocks, roots and other foreign materials, and which meet the specified requirements, may be used as required for the backfills constructed under these specifications.

Vertical faces of excavations shall not be undercut to provide for extended

Drainage filter material shall be placed where required by the City and shall be compacted to a degree which will permit water to pass it readily, but will

not have excessive settlement later.

CONCRETE ENCASED PVC CONDUIT TRENCHING. Trenches for concrete encased PVC conduit shall be dua to lines indicated on the drawings or at other locations acceptable to the City and to the exact depth required for the proper grade of the conduits with encasement or embedment. Wherever possible, the trenches shall be excavated to permit the concrete encased PVC conduit to rest on undisturbed earth or rock. Where it is necessary to trench through backfill, the earth shall be well compacted before the concrete encased PVC conduit is installed.

All trenches shall be wide enough to provide ample room for workmen engaged in handling and installing conduits. Where it is necessary to reduce the earth load on trench banks to prevent sliding or caving, trench banks may be cut back on slopes which shall not extend lower than 12-inches above the top of the concrete encased PVC conduit.

Subgrade soil shall be firm and compact. Should the topsoil in any area be mucky or, should it work into mud under the feet of the workmen, the Contractor shall reinforce it. Reinforcing shall be done by removing a sufficient depth of mucky material and replacing it by one or more thin layers of crushed rock or gravel, each layer being tightly rolled or otherwise embedded in the soil. The subgrade shall then be brought to the proper level by means of a thin layer of sand tamped or rolled into the reinforced subsoil. No conduit shall be laid under unsuitable weather or trench conditions.

If rock is encountered in the excavation, it shall be removed and replaced with a suitable tamped or rolled granular material and brought to the proper laying elevation as described above.

BACKFILL FOR TRENCHES. All backfill for trenches opened to place cable or conduit shall be compacted. Backfill material shall be either suitable job excavated material or suitable material furnished by the Contractor and as described as follows:

Compacted backfill material under road surfaces, road shoulders, parking areas and lawn areas shall be finely divided and free from debris, organic material and stones larger than 3-inches in greatest dimension. Compacted backfill material shall be placed in uniform layers not exceeding 8—inches in uncompacted thickness. Increased layer thickness may be permitted for noncohesive material if the Contractor demonstrates to the satisfaction of the City that the specified compacted density will be obtained. The method of compaction and the equipment used shall be appropriate for the material to be compacted and shall not transmit damaging shocks to the conduit.

Trenching across or within City of Blythe Street R/W shall be backfilled using Class 2 base (as described in the July, 1999 edition of California Department of Transportation Standard Specification Section 25).

Specific backfill gradation requirements are as follows:

100 per cent passing 3" sieve 90-100 per cent passing 2" sieve 40-90 per cent passing No. 4 sieve 0-25 per cent passing No. 200 sieve Sand equivalent must be 21 Min.

centerline of the pavement.

No native soil removed from trenches shall be used for backfill purposes without approval of City of Blythe Director of Public Works. Backfill shall be compacted to 90 per cent of maximum density. Four inches of hot mixed asphaltic concrete shall be placed on all trenches across paved areas in accordance with the following section.

PAVEMENT REMOVAL AND REPLACEMENT. Cuts in concrete and asphalt paved shoulders shall be no larger than necessary to provide working space. Cutting shall be started with a concrete saw which will provide a clean groove at least 2-1/2 inches deep along each side of the trench.

Concrete and asphalt pavement over and adjacent to trenches excavated shall

be removed so that a shoulder not less than 1 foot in width at any point is

left between the cut edge of the pavement and the top edge of the trench. Trench width at the bottom shall not be greater than at the top and no undercutting will be permitted. Pavement cuts shall be made to and between straight or accurately marked

curved lines, which, unless otherwise required, shall be parallel to the

If the trench parallels the length of concrete walks and the trench location is all or partially under the walk, the entire walk shall be removed and replaced. Where the trench crosses drives, walks, curbs or other surface construction, the surface construction shall be removed and replaced between existing ioints, or between saw cuts as specified for pavement. Street specifications for construction in the City of Blythe are indicated at the end of this

Cut or damaged surfaces due to construction shall be replaced with new surfacing. Replacement surfacing shall match existing surfacing and shall be finished flush with existing adjoining surfaces. Pavement replacement materials shall match the thickness and density of the material excavated unless otherwise specified hereinafter. As a minimum, the following requirements shall be met.

1. Compacted subgrade shall meet the requirements of BACKFILL FOR

2. Backfill and base coarse material shall be as stated in BACKFILL FOR TRENCHES unless otherwise specifically approved by the City.

3. Two course bituminous surface treatments shall comply with the applicable sections of the Caltrans Standards.

4. Asphalt Concrete paving shall comply with the applicable sections of the Caltrans Standards. Asphalt concrete shall be a job mix formula with a design density between 95 and 97 per cent of voidless mixture determined by the 50 blow Marshall Test, in accordance with the State of California CALTRANS Standard Specification, current edition. Hot, plant mixed material shall be of the size, 3/4" medium-maximum to 3/8" max. Type A, B, or Open Graded aggregate blended with either AR4000, or AR8000 Steam Refined Paving Asphalts, as defined in Section 92, "Asphalts" and Section 39 "Asphalt Concrete". Requirements for asphalt concrete paving shall be as specified unless otherwise specifically approved by the City or as stated below.

A. Asphaltic concrete replaced in the City of Blythe street right-of-way shall be a minimum of 3 inches thick with 3/4 inch maximum agaregate size. Greater thicknesses of Asphaltic Concrete and /or Class 2 base material may be required as determined by the geotechnical investigation.

B. Temporary repaving using cold mix asphaltic concrete will be allowed for a maximum of 30 days from date of trenching.

C. Pavement replacement shall match existing paving in type of pavement, appearance, wearing surface and durability to the maximum extent practical. Pavement repair shall be subject to approval by the City. Pavement repair not installed in accordance with the requirements of these specifications shall be removed and replaced. Concrete paving shall comply with the applicable sections of the Caltrans standards. Concrete requirements shall be in accordance with the section entitled CAST-IN-PLACE CONCRETE. Replacement shall match existing structures to the maximum extent practical and shall include curbing, walkways or any other concrete structure damaged during construction.

MAINTENANCE AND RESTORATION OF BACKFILL. Backfill that settles or erodes before final acceptance of the work, and pavement structures and other facilities damaged by such settlement or erosion shall be repaired. The settled or eroded areas shall be refilled, compacted and graded to conform to the elevation indicated on the drawings or to the elevation of the adjacent ground surface. Damaged facilities shall be repaired in a manner acceptable to the City. The Contractor will guarantee his pavement repairs for one

DISPOSITION OF MATERIALS. Excavated earth materials shall be used to construct backfills to the extent required. Surplus earth, if any, and materials which are not suitable for backfill shall be spoiled in a manner and location as approved by the City.

SPECIFICATION FOR THE PLACEMENT OF CAST-IN-PLACE CONCRETE

PRELIMINARY REVIEW. The source and quality of concrete materials and the concrete proportions proposed for the work shall be submitted to the City for review before the concrete work is started. Such review will be for general acceptability only and continued compliance with all contract provisions will be reauired.

LIMITING REQUIREMENTS. Concrete utilized for but not limited to curb and gutter, spandrels, sidewalks, curb returns, manhole bases, rings for manhole frames, and valve risers and rings for water risers, shall be Type V cement, Class 3 concrete and shall have 1.5 lbs. of polypropylene fiber per cubic yard of concrete. Polypropylene fiber shall be "Fibermesh" or an approved equal. The quantity of Portland cement expressed in pounds per cubic yard. shall be not less than that indicated in the following table. These minimum cement factors shall apply only to concrete containing either the specified plasticizer or plasticizing retarder. If, for any reason, both the plasticizer and plasticizing retarder are omitted, the cement factor shall be increased by 10 per cent.

	Course Aggregate Size From No. 4 Sieve to
Concrete slump	1/2" 3/4" 1"
3 inches 4 inches 5 Inches	592 564 536 611 583 555 630 602 573
Total water content	Not more than 6.4 gallons per 100 pounds of cement
Coarse aggregate size	One Inch to No. 4
Total air content	5 per cent plus or minus 1 per cent
Consistency	Workable, without segregation, with slump not more than 4 inches when concrete is placed
Mixing	Thoroughly in a mechanical mixer for not less than 3 minutes
at age 28 days	Not less than 4000 psi Compressive strength

BATCHING AND MIXING. Batching and mixing shall conform to ASTM C94,

except as otherwise specified herein.

Truck mixers shall be revolving drum type and shall be equipped with a mixing water tank. Only the prescribed amount of mixing water shall be placed in the tank for any one batch unless the tank is equipped with a device by which the amount of water added to each batch can be readily verified by the City. A delivery ticket shall be prepared for each load of ready—mixed concrete delivered and handed to the City by the truck operator at the time of delivery. Tickets shall show the number of yards delivered, the quantities of each material in the batch, the outdoor temperature in the shade, and the time at which the cement was added.

FIELD CONTROL TESTING. Field control tests consisting of slump tests, air content tests, aggregate gradation tests and the preparation of concrete test specimens shall be made by the Contractor. The Contractor shall provide for making the tests and test specimens and for storing, curing, handling and delivering test specimens to a testing laboratory retained and paid by the City.

Slump. A slump test shall be made each day concrete is placed. Slump shall be determined in accordance with ASTM C143.

Air Content. An air content test shall be made each day concrete is placed. Air content shall be determined in accordance with ASTM C231.

Compression Tests. A set of three compression test cylinders shall be made each day concrete is placed. One cylinder of each set shall be tested at an age of 7 days and another at an age of 28 days.

REG. EXP.

Concrete test cylinders shall be made, cured, stored and delivered to the laboratory in accordance with ASTM C31.

Each set of compression test cylinders shall be marked or tagged with the date and time of day the cylinders were made, the location in the work where the concrete was placed, the air content, and the slump.

Aggregate Gradation. Fine and coarse aggregate shall be sampled and tested in accordance with ASTM D75 and C136.

REINFORCEMENT. Reinforcement shall be accurately formed and positioned and shall be maintained in proper position while the concrete is being placed and compacted. Details of fabrication shall conform to ACI 318-83.

HOT WEATHER CONCRETING. Except as modified herein, hot weather concreting shall comply with ACI 305. At air temperatures of 90° F or higher special procedures shall be adopted to keep the concrete as cool as possible during placement and curing. The temperature of the concrete when it is placed in the work shall not exceed 90° F. Whenever the air temperature exceeds 95° F, membrane cured slabs shall be kept wet to promote cooling of the concrete during the curing period.

CURING. Concrete shall be protected from loss of moisture for at least 7 days by polyethylene film or membrane curing compound. Membrane curing compound shall be applied as recommended by the manufacturer. Concrete shall not be permitted to freeze for at least 7 days following placement.

REPAIRING DEFECTIVE CONCRETE. Defects in formed concrete surfaces shall be repaired to the satisfaction of the City within 24 hours and defective concrete shall be replaced within 48 hours after the adjacent forms have been removed. All concrete which is porous, honeycombed or otherwise defective to a depth in excess of one inch shall be cut out and removed.

The Contractor is responsible to prevent vandalism or graffiti to fresh concrete. Dry sack or other repair will not be allowed. Remove and replace only. ANYTHING OFFENSIVE TO THE PUBLIC SHALL BE REPLACED IMMEDIATELY.

Concrete repair work shall be performed in a manner that will not interfere

with thorough curing of surrounding concrete. Mortar and concrete used in

repair work shall be adequately cured and shall be finished to match adjoining surfaces. CONCRETE FOR ENCASED PVC CONDUIT. Concrete for encased PVC conduit shall have a slump of 6 inches, shall contain at least 470 pounds of cement per cubic yard and shall contain no aggregate larger than 3/4 inch.

Minimum compressive strength at 28 days shall be 2,500 psi. Concrete for

encased PVC conduit shall be compacted by rodding or spading only. Mechanical vibrators shall not be used. Concrete shall be worked around reinforcements and embedment and worked into the corners of the forms. The top surface of the concrete for encased PVC conduit shall be screeded

only. No floating or troweling of the surface is required. CONCRETE JOINT SEALANT, Caulk all expansion joints in curb and gutter

using a multiple component, self leveling polyurethane based sealant conforming to ASTM C 620-86, Type M, Class 25. Acceptable products include, but are not limited to, the following:

Mameco International: Vulkem 245 Sonneborn Building Products: Sonolastic Paving Joint Sealing

(Land Surveyor's Act).

PRESERVATION OF MONUMENTS AND STAKES. The Contractor shall carefully preserve all monuments, bench marks, reference points and stakes installed by the City. Permanent monuments or bench marks which must be removed or disturbed shall be protected until they can be properly referenced for relocation The Contractor shall furnish materials and assistance for the proper replacement of such monuments or bench marks. The replacement of all monuments and bench marks shall be preformed by a The replacement of all monuments and bench marks shall be preformed thr City Engineer pursuant to the Business and Code, Section 8700 to 8805

The Holt Group ENGINEERING · PLANNING · SURVEYING

321 W. Hobsonway, Suite A

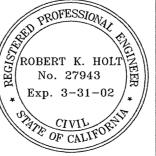
1561 S. 4th Street

Blythe, California 92225 (760) 922-4658 El Centro. California 92243 (760) 337-3883

APPROVED DATE **REVISIONS:** DESIGN BY: JVP DRAWN BY: JVP CHECKED BY: UNAUTHORIZED CHANGES & USES: The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans RKH must be in writing and must be approved by the preparer of these plans.

BENCH MARK:

COTTON SPINDLE ON WEST SIDE OF POWER POLE #F-6103 IN THE PLANT SITE PARKING LOT AREA. ELEV. 335.00



PREPARED UNDER THE DIRECT SUPERVISION OF: ROBERT K. HOLT, P.E. 9/06/01 03/31/02

DATE

PROJECT TITLE: BLYTHE ENERGY PROJECT RIVERSIDE AVENUE / FIRE ACCESS ROAD 27943 **IMPROVEMENT PLANS** R.C.E. NO.

SHEET CONTENT: TECHNICAL NOTES

OF 7 SHEETS JOB NO. 632.001

SHEET